

CLAIMS

What is claimed is:

1. A method for resecting at least a portion of a lateral or medial facet at a proximal end of a tibia, the method comprising:

forming a tunnel having a proximal end on a lateral, medial, or anterior side of a proximal end of a tibia and a distal end on a lateral or medial facet at the proximal end of the tibia;

advancing a first end of a retention rod from the proximal end of the tunnel to the distal end of the tunnel; and

engaging a first rasp to the first end of the retention rod; and

moving at least the first rasp or the retention rod so as to cause the first rasp to resect at least a portion of the lateral or medial facet at the proximal end of the tibia.

2. A method as recited in claim 1, wherein the act of forming the tunnel comprises:

positioning a template over the lateral or medial facet of the tibia;

biasing a tubular guide sleeve against the lateral, medial, or anterior side of the proximal end of the tibia; and

passing a drill tool through the guide sleeve and into the tibia so as to form the tunnel.

3. A method as recited in claim 1, wherein the rasp comprises a rasp body having a pivot arm hingedly mounted thereto, the act of engaging the first rasp to the first end of the retention rod comprising:

securing an insertion handle to the rasp body; and

using the insertion handle to place the rasp body onto the lateral or medial facet of the tibia.

4. A method as recited in claim 3, wherein the act of securing the insertion handle to the rasp body comprises inserting at least a portion of the pivot arm within the insertion handle.

5. A method as recited in claim 3, wherein the act of moving at least the first rasp or the retention rod comprises:

removing the insertion handle from the rasp body; and

mounting a reciprocating driver to the pivot arm.

6. A method as recited in claim 1, wherein the first rasp comprises a rasp body having a rasp guide slidably mounted thereto, the act of engaging the first rasp to the first end of the retention rod comprising connecting the retention rod to the rasp guide.

7. A method as recited in claim 1, wherein the retention rod comprises a tubular set rod and a hook rod movably disposed within the set rod, the method comprising:

connecting the hook rod to a rasp guide; and

biasing the set rod against the rasp guide so as to tension the hook rod.

8. A method as recited in claim 1, wherein the act of moving at least the first rasp or the alignment rod comprises reciprocating at least a portion of the first rasp while the retention rod is engaged to the first rasp.

9. A method as recited in claim 1, further comprising:

disengaging the retention rod from the first rasp; and

engaging the retention rod with a second rasp, the second rasp having a configuration different than the first rasp.

10. A method for resecting at least a portion of a lateral or medial facet at the proximal end of a tibia, the method comprising:

forming a tunnel having a proximal end on a lateral, medial, or anterior side of a proximal end of a tibia and a distal end on a lateral or medial facet at the proximal end of the tibia;

positioning a first cutting template on the lateral or medial facet of the tibia;

advancing a first end of a retention rod from the proximal end of the tunnel to the distal end of the tunnel; and

engaging the retention rod extending through the tunnel to the first cutting template at a first location on the first cutting template so as to secure the first cutting template on the lateral or medial facet of the tibia.

11. A method as recited in claim 10, wherein the act of forming the tunnel comprises:

positioning a guide template over the lateral or medial facet of the tibia;

biasing a tubular guide sleeve against the lateral, medial, or anterior side of the proximal end of the tibia; and

passing a drill tool through the guide sleeve and into the tibia so as to form the tunnel.

12. A method as recited in claim 10, wherein the act of engaging the retention rod to the first cutting template comprises hooking the pull rod to the template.

13. A method as recited in claim 10, wherein the retention rod comprises a tubular set rod and a hook rod movably disposed within the set rod, the act of engaging the retention rod to the first cutting template comprising:

connecting the hook rod to the first cutting template; and

biasing the set rod against the first cutting template so as to tension the hook rod.

14. A method as recited in claim 10, further comprising resecting at least a portion of the lateral or medial facet of the tibia on which the first cutting template is disposed.

15. A method as recited in claim 10, wherein the first cutting template at least partially bounds a guide space extending through the first cutting template, the method further comprising resecting at least a first portion of the lateral or medial facet of the tibia exposed in alignment with the guide space of the first cutting template.

16. A method as recited in claim 15, wherein the act of resecting comprises at least scraping, drilling, burring, or chiseling the first portion of the lateral or medial facet of the tibia.

17. A method as recited in claim 15, further comprising:

moving the first cutting template on the lateral or medial facet of the tibia; and

resecting at least a second portion of the lateral or medial facet of the tibia exposed in alignment with the guide space of the first cutting template.

18. A method as recited in claim 15, further comprising:

disengaging the retention rod from the first cutting template at the first location; and

reengaging the retention rod with the first cutting template at a second location on the first cutting template.

19. A method as recited in claim 15, further comprising:
- disengaging the retention rod from the first cutting template;
- replacing the first cutting template with a second cutting template; and
- engaging the retention rod with the second cutting template.

20. A method as recited in claim 10, wherein the first cutting template comprises a plate bounding a plurality of discrete guide spaces, each guide space comprising an elongated channel.

21. A rasp assembly comprising:

a rasp body having a top surface and an opposing bottom surface, a plurality of cutting edges being formed on the bottom surface; and

a rasp guide slidably mounted on the rasp body such that at least a portion of the rasp guide projects from or is accessible through the bottom surface of the rasp body.

22. A rasp assembly as recited in claim 21, wherein the rasp body bounds a guide slot formed on the rasp body and bounds an opening extending from the guide slot to the bottom surface of the rasp body, the rasp guide being slidably disposed within the guide slot such that at least a portion of the rasp guide is disposed within the opening.

23. A rasp assembly as recited in claim 22, wherein the rasp guide comprises:

a slide plate slidably disposed within the guide slot;

a pair of spaced apart forks projecting from the slide plate through the opening; and

a pin extending between the spaced apart forks.

24. A rasp assembly as recited in claim 23, wherein each fork comprises a sloping outside shoulder.

25. A rasp assembly as recited in claim 21, further comprising a pivot arm hingedly mounted to the rasp body.

26. A rasp assembly as recited in claim 21, wherein the bottom surface of the rasp body is arched.

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27. A rasp assembly comprising:

a rasp body having a top surface and an opposing bottom surface, a plurality of cutting edges being formed on the bottom surface; and
a pivot arm hingedly mounted to the rasp body.

28. A rasp assembly as recited in claim 27, wherein the bottom surface of the rasp body is arched.

29. A rasp assembly as recited in claim 27, further comprising a rasp guide slidably mounted on the rasp body such that at least a portion of the rasp guide projects from or is accessible through the bottom surface of the rasp body.

30. A rasp assembly as recited in claim 29, wherein the rasp body bounds a guide slot formed on the top surface of the rasp body and bounds an opening extending from the guide slot to the bottom surface of the rasp body, the rasp guide being slidably disposed within the guide slot such that at least a portion of the rasp guide is disposed within the opening.

31. A rasp assembly as recited in claim 27, further comprising an insertion handle, the insertion handle comprising a body having a pair of spaced apart lips bounding a slot, a channel extends into the body and communicates with the slot, the channel is configured to receive the pivot arm with the rasp body is received within the slot.

32. A system for resecting at least a portion of a lateral or medial facet at the proximal end of a tibia, the system comprising:

a rasp body having a bottom surface with a plurality of cutting edges, the rasp body being adapted for placement on a lateral or medial facet at a proximal end of a tibia;

an elongated retention rod; and

means for removably engaging the retention rod with the rasp body such that the rasp body can be selectively reciprocated without substantial movement of the retention rod.

33. A system as recited in claim 32, wherein the rasp body comprises a plate, the bottom surface of the plate being arched.

34. A system as recited in claim 32, wherein the means for removably engaging the retention rod with the rasp body comprises:

a rasp guide slidably mounted on the rasp body such that at least a portion of the rasp guide projects from or is accessible through the bottom surface of the rasp body; and

the retention rod is configured to engage with the rasp guide.

35. A system as recited in claim 32, wherein the means for removably engaging the retention rod with the rasp body comprises:

a slide plate slidably mounted on the rasp body;

a pair of spaced apart forks projecting from the slide plate so as to extend beyond the bottom surface of the rasp body;

a pin extending between the spaced apart forks; and

a hook formed on the end of the retention rod, the hook being configured to hook over the pin.

36. A system as recited in claim 32, wherein the retention rod comprises:

a tubular set rod; and

a hook rod disposed within the tubular set rod.

37. A system for resecting at least a portion of a lateral or medial facet at a proximal end of a tibia, the tibia having a tunnel with a proximal end at a lateral, medial, or anterior side of a proximal end of the tibia and a distal end at the lateral or medial facet of the tibia, the system comprising:

a first resecting template at least partially bounding a first guide space extending through the first resecting template, the first resecting template being adapted for placement on the lateral or medial facet of the tibia such that the first guide space is aligned with at least a first portion of the lateral or medial facet of the tibia to be resected;

a retention rod adapted to fit within the tunnel formed on the tibia; and

means for removably engaging the retention rod to the first cutting template so that the retention rod secures the first cutting template to the lateral or medial facet of the tibia when the retention rod is received within the tunnel of the tibia.

38. A system as recited in claim 37, wherein the first cutting template comprises a plate having a top surface and an opposing bottom surface, the first guide space extending between the top surface and the bottom surface so as to be completely bounded by the plate.

39. A system as recited in claim 37, wherein the first cutting template bounds a plurality of discrete guide spaces.

40. A system as recited in claim 39, wherein each of the plurality of guide spaces comprises an elongated open channel extending through the first cutting template.

41. A system as recited in claim 37, further comprising a second cutting template at least partially bounding a second guide space extending through the second cutting template, the second cutting template being adapted for placement on the lateral or medial facet of the tibia such that the second guide space is aligned with at least a second portion of the lateral or medial facet to be resected.

42. A system as recited in claim 37, wherein the means for removably engaging the retention rod to the first cutting template comprises a hook formed on an end of the retention rod.

43. A system as recited in claim 37, wherein the retention rod comprises:
a tubular set rod; and
a hook rod disposed within the tubular set rod.